

WEST Search History

DATE: Monday, May 09, 2005

Hide?	<u>Set</u> <u>Name</u>	<u>Query</u>	<u>Hit</u> <u>Count</u>
	<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>		
<input type="checkbox"/>	L17	L15 and (Au55)	4
<input type="checkbox"/>	L16	L15 and (Au)near2(55)	1
<input type="checkbox"/>	L15	(ligand)near2(exchang\$)	2316
<input type="checkbox"/>	L14	L13 and coulomb	20
<input type="checkbox"/>	L13	(wybourne or Hutchison) and (cluster\$ or nanocluster\$ or nanoarray\$ or array\$)	756
<input type="checkbox"/>	L12	(metal)near3(cluster\$ or nanocluster\$) and (coulomb)near2(blockdad\$)	0
	<i>DB=USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>		
<input type="checkbox"/>	L11	(biomolecular\$ or polylys\$)near2(scaffold\$)	3
<input type="checkbox"/>	L10	nanocluster\$ and l6	10
<input type="checkbox"/>	L9	L6 near30(DNA or protein\$ or polypeptid\$ or polylys\$ or biomolecul\$)	0
<input type="checkbox"/>	L8	L7 and (DNA or protein\$ or polypeptid\$ or polylys\$)	12
<input type="checkbox"/>	L7	L6 and (array\$ or nano-array\$ or nanoarray\$)	132
<input type="checkbox"/>	L6	(coulomb)near2(blockad\$)	287
	<i>DB=USPT; PLUR=YES; OP=OR</i>		
<input type="checkbox"/>	L5	L4 and (array\$ or nanoarray\$)	12
<input type="checkbox"/>	L4	(coulomb).clm. and (blockade).clm.	23
<input type="checkbox"/>	L3	(coulomb)near2(blockade)	217
	<i>DB=PGPB; PLUR=YES; OP=OR</i>		
<input type="checkbox"/>	L2	L1 and threshold	1
<input type="checkbox"/>	L1	10/816,603	1

END OF SEARCH HISTORY

10/ 816, 4 03

(FILE 'HOME' ENTERED AT 15:39:28 ON 09 MAY 2005)

FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 15:39:48 ON 09 MAY 2005

L1 132 S (WYBOURNE, M? OR WYBOURNE M?)/AU,IN
L2 2242 S (HUTCHISON, J? OR HUTCHISON J?)/AU,IN
L3 15 S L2 AND (COULOMB) (2A) (BLOCKAD?)
L4 15 DUP REM L3 (0 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 15:42:03 ON 09 MAY 2005

FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 15:46:30 ON 09 MAY 2005

L5 4879 S (AU OR GOLD) (3A) (CLUSTER? OR NANOCLUSTER?)
L6 57 S L5 AND (LIGAND?) (4A) (EXCHANGE?)
L7 49 DUP REM L6 (8 DUPLICATES REMOVED)
L8 5 S L7 AND (AU55)
L9 18624 S (POLY) (2A) (LYS?)
L10 11 S L5 AND L9
L11 8 DUP REM L10 (3 DUPLICATES REMOVED)
L12 2302 S (COULOMB) (3A) (BLOCKAD?)
L13 208 S L12 AND (AU!! OR GOLD)
L14 89 S L13 AND (CLUSTER? OR NANOCLUSTER? OR NANOARRAY? OR ARRAY?)
L15 7 S L14 AND (POLYLYS? OR DNA OR HELIX OR HELICAL OR PROTEIN? OR P

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L8 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1988:503547 CAPLUS
 DN 109:103547
 ED Entered STN: 17 Sep 1988
 TI Large transition metal clusters-VI. **Ligand exchange**
 reactions on the **gold** triphenylphosphine chloro **cluster**
 , **Au55**(PPh3)12Cl6 - the formation of a water soluble
gold (Au55) cluster
 AU Schmid, Guenter; Klein, Norbert; Korste, Ludger; Kreibig, Uwe; Schoenauer,
 Detlev
 CS Inst. Anorg. Chem., Univ. Essen, Essen, D-4300/1, Fed. Rep. Ger.
 SO Polyhedron (1988), 7(8), 605-8
 CODEN: PLYHDE; ISSN: 0277-5387
 DT Journal
 LA English
 CC 78-7 (Inorganic Chemicals and Reactions)
 Section cross-reference(s): 29
 AB **Au55**(PPh3)12Cl6 is soluble in organic solvents like pyridine or CH2Cl2
 but decomp. rapidly, thus precluding crystal growth and other studies.
 Exchange of PPh3 in **Au55**(PPh3)12Cl6 by Ph2PC6H4SO3Na takes place
 quant. and yields stable water-soluble **Au55**
 (Ph2PC6H4SO3Na.2H2O)12Cl6. Mol. weight detns. and conductivity measurements
 in H2O
 show that the cluster is completely dissociated into 12Na+ and [**Au55**
 (Ph2PC6H4SO3)12Cl6]12-. From such aqueous solns. very small, probably
 crystalline
 particles are obtained which can, in the dried state, be observed in the
 transmission electron microscope using a 100 kV electron beam. Images are
 given that show columns or layers of cluster mols. with a distance of 2.1
 ± 0.1 nm. The diams. of a cluster mol. including the ligand shell and
 of the naked cluster are calculated as 2.2 ± 0.1 and 1.3-1.4 nm, resp. The
 cluster mols. forming the layered structures are intact. This is the 1st
 time that M55 clusters could be imaged with an intact ligand shell by TEM.
 Earlier microscopic studies with a 400 kV beam gave high resolution images of
 the cluster nuclei only.
 ST phosphinobenzenesulfonato **gold** pentapentacosa **cluster**;
 benzenesulfonato phosphino **gold cluster**; sulfonato
 phosphinobenzene **gold cluster**
 IT **Cluster** compounds, coordinative
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (gold, pentapentacontanuclear, diphenylphosphinobenzenesulfon
 ate chloro, preparation and microscopy of)
 IT 115804-59-6P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and transmission electron microscopic study of)
 IT 115945-06-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 IT 104619-10-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with (diphenylphosphino)benzenesulfonate)
 IT 603-35-0, Triphenylphosphine, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with fuming sulfuric acid)
 IT 8014-95-7, Fuming sulfuric acid
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with triphenylphosphine)

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